

## Amendments to the Specification

1. The previous abstract was replaced with a new abstract.
2. In paragraph [0005], the misspelled word “~~waveguids~~” was corrected to “waveguide”.
3. In paragraph [0005], the misspelled word “~~die~~” was corrected to “dye”.
4. In paragraph [0006], the multi-word “~~pseudo band gap~~” was replaced with “stopgap”.
5. In paragraph [0007], the misspelled word “~~die~~” was corrected to “dye”.
6. In paragraph [0008], the “~~fluoride~~” was replaced with “fluorine”.
7. In paragraph [0008], “~~and~~” was replaced with “or”.
8. In paragraph [0012], the sentences “~~The infiltration and densification steps were repeated for 10 times to fill most of the voids inside the silica The titania-silica composite film on substrate produced in the preceding steps was immersed in a warm template.~~” were moved to the beginning of paragraph number [0013].

9. In paragraph [0013], the word “~~template~~” was deleted.
10. In paragraph [0018], the word “~~or~~” was deleted.
11. In paragraph [0018], the words “silicon wafer, quartz, or mica” were added.
12. In paragraph [0019], the word “~~Faleon~~” was deleted.
13. In paragraph [0018], the words “titanium(iv) butoxide, titanium(iv) tert-butoxide, titanium(iv) methoxide, or titanium(iv) propoxide” were added.
14. In paragraph [0019], the word “~~Faleon~~” was deleted and replaced with “centrifuge”.
15. In paragraph [0020], the sentence “~~Basically, the smaller the machine is the faster it should turn to produce same gravitational effect. And it was kept turning for 30 to 60 minutes~~” was deleted.
16. In paragraph [0021], the word “~~Faleon~~” was deleted and replaced with “centrifuge”.
17. In paragraph [0032], the word “silicon wafer, quartz, or mica” were added.